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ABSTRACT

This transcript reproduces a Department of Education/College Board sponsored discussion on ways to expand advanced placement (AP) opportunities in high schools. The deliberations opened with a presentation by Phil Chavez, an assistant principal in San Antonio, Texas, who outlined the genesis and development of the AP program in his predominantly Hispanic high school. He discussed the importance of interschool collaboration, the use of vertical teams, and the need to train teachers for these courses. The next speaker, Rex Bolinger, a high-school principal in Angola, Indiana, described the origins of his school's academic excellence and the emphasis on partnerships, technology, and AP courses. He detailed collaborative efforts with the local university and the need to include other schools in the community in AP programs. Next, Bob Moses, Director of the Algebra Project, discussed the Young People's Project, an initiative that turned Mississippi's middle-school students into leaders. He also described the Algebra Project and how it motivates middle-school students to prepare for high school. The final speaker, Diana Kraus, an AP English teacher at a high school in Tomson, Maine, described the need to teach students study skills and the importance of a supportive program. (RJM)

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A FORUM TO EXPAND ADVANCED PLACEMENT OPPORTUNITIES: INCREASING ACCESS AND IMPROVING PREPARATION IN HIGH SCHOOLS

* * *

STRATEGIES TO OVERCOME CHALLENGES IN RURAL AND SMALL SCHOOLS

* * *

SPRINGWOOD

FIRST AND SECOND BREAKOUT SESSIONS

WASHINGTON, D.C.

FIRDAY, FEBRUARY 11, 2000

(THIS TRANSCRIPT WAS PRODUCED FROM A TAPE RECORDING.)

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DEPARTMENT OF EDUCATION

NATIONAL FORUM TO EXPAND ADVANCED PLACEMENT OPPORTUNITIES

Springwood 1st Session

TAPE 1

(Tape Side A.)

GAIL SCHWARTZ: Welcome, everybody. I think we'll go ahead and get started, and I know that they have done a lot of moving up, pushing things up this morning.

So, I hope everyone is calm and settled and where they want to be.

I am Gail Schwartz, and I am with the Department of Education here in Washington.

I direct an initiative called New American High Schools, and I work out of the office, interestingly enough, in vocational and adult education.

But, our high school work--our New

American High Schools initiative--started about five, six years ago, kind of a homespun initiative, if you can call anything Federal homespun.

It was really designed to get--build some momentum for high school issues and high school reform.

We now are working very collaboratively with our partners across the street from us at the Office of Elementary and Secondary Education.

There is a tremendous amount of work now going on at the Department around high schools issues, and I will share those with you later.

But, I want to introduce now our panelists, and each of our panelists, we are delighted to have each of them.

They are terrific, and they will each take about ten minutes to talk about some of the issues and how they have grappled with them around incorporating AP courses into their curriculum in their small and rural schools.

I will just introduce them, and then we'll get rolling.

First is, down at the end of the table, Robert Moses, who is the Director or President of the Algebra Project.

He is from Mississippi. We are delighted to have him, and recently won the Haines Award? Heinz Award, sorry.

Congratulations on that. Maybe you'll tell folks a little bit about that.

To Bob's right is Rex Bolinger, who is principal of Angola High School in Angola, Indiana.

Next to Rex is Phil Chavez, who is the Assistant Principal at Southside High School in San Antonio, Texas.

Last but not least is Diana Kraus, who is an AP English teacher at Mount Ararat High School in Topsom, Maine.

So, we are going to start with Phil. As I said, he is going to take about ten minutes just to give you an overview of the work that he's involved with in San Antonio.

Take it away, Phil.

PHIL CHAVEZ: Good morning. After hearing

that rousing speech this morning, it seems that he set the stage for what AP should be--what direction we should go in.

Basically, I want to give you a little background about our school.

We are a rural school in the southern apex of San Antonio, Texas.

Basically, we have no industry. That's (inaudible) rivers flowing south, we do have several sewage treatment plants in the area, golf courses, things of that nature.

But, nothing to really generate any revenue. (inaudible) approximately (inaudible) square miles (inaudible) high school is approximately, as of yesterday, 1007 students.

Seventy-seven (77) percent of our students are low socioeconomic students, okay? Eighty-one (81) percent of our students are Hispanic.

Last year, 75 percent of our students applied to college (inaudible). So, what kind of courses do we offer?

Well, this year, as a result of last

year's problem with a counselor, we have two less AP courses, and that's one of the things I want to focus on.

It's a team effort at the campus level as well as the district level. We offer biology, physics B and C, calculus AP, and BC, English literature, English language, studio art, spanish language that should be spanish literature.

Actually, I want to tell you a little story about spanish. Fifteen years ago, we had a gentleman by the name of Mr. (inaudible), who started the AP spanish program, along with Mr. (inaudible), our principal at the time.

It was the first AP course offered along with (inaudible) literature, and he had, at the end of the year, a large percent of fours and fives for the first time ever offered.

This course served as a nucleus for us to build the other AP courses, and that was our strong point.

Obviously, with 31 percent Hispanic, there was a little bit of knowledge of the language, and so

we went to the next year.

We're going to offer economics, government politics, music theory, statistics, computer science A, chemistry.

Of these, we have offered government and politics, statistics, computer science, and chemistry in the past.

But, there was a little idea from one particular counselor that thought that maybe these students couldn't really make it in these courses.

As a result, they didn't make it. Academic excellence -- the first thing I want to speak about.

You have to have an aura of academic excellence in the entire school, and along with that you have to ensure student success, okay?

We can top academic excellence. We don't ensure student success (inaudible) off the bar.

The second thing is to key people, involving administration, department chairs, and the counseling office to develop an effective strand of courses.

We place the AP courses at the capstone of that particular strand.

When I say "strand," we're talking 6th, 7th, 8th, all the way through 12th grade, okay, the concept of a vertical team, which I will speak to in a tad bit.

But, it's important again to ensure student success in the AP program, we just don't all of a sudden say: Okay, after a second year of English, you're going to jump into English language.

They haven't focused on basic skills in English prior to that, so don't expect the students to be as successful.

When the teachers place a high mark up in this level, possibilities that the students aren't going to succeed are high.

So, you have to look at those (inaudible) courses. You have to look at (inaudible) junior high.

At Southside, (inaudible) very fortunate. Even though we number 243 square miles, the primary, intermediates, the junior high campus, and the high

school are sit on one large campus.

So, one would think that these teachers at the junior high or the middle school, rather, the high school, constantly dialogue.

Well, no. They could be a stone's throw away or they could be several miles away. That's not going to occur.

It has to come from the administration (inaudible) giving them the break-out time.

Master schedule -- working in a master schedule where students could take these courses.

Now, 1007 students in small schools. What's the biggest problem?

Well, you can have this group of students that take band, athletics, and then they want to take the AP English.

They want to take all these different courses. Well, you have to structure the pre-AP courses and your AP courses such that everyone has an opportunity.

Vertical team -- We, in the vertical teams, you must allow these teachers time to

conference, time to look at what is taught.

We want to have a program that (inaudible) written curriculum that the state provides. There's the test curriculum that the state tests, and then individuals in the classroom test.

Then, there is (inaudible) curriculum that is taught, okay. We look at the curriculum that was taught. We surveyed these teachers with the (inaudible) -- what concepts, what topics, what overarching themes do you cover -- and from there started to develop a strand of courses that had (inaudible) capstone course, the AP language literature, or whatever AP course (inaudible).

Out of this dialogue, we were able to set up some successful pre-AP courses, and, just as Jerry mentioned early this morning, algebra 1 courses for the 8th grade.

Now, recently we went to a core plus math system. I don't know if any of you are familiar with the core plus math system.

But, it was a math program developed by a grant from the National Science Foundation that

combines the algebra, geometry, and algebra 2 together.

So, we offer algebra 1, math 1, math 2, and math 3. We are currently looking at offering the math 1 at the 8th grade level to ensure success.

(Pause.)

PHIL CHAVEZ: Recruitment -- the concept at Southside is to allow students to (inaudible) courses with as little resistance as possible.

(inaudible) addresses the idea of the general course that Jerry was talking about earlier. What is a general course?

We should make all students have access to these courses. One of the biggest recruiters-- I taught AP biology for 13 years in the same school (inaudible) rat race of vice principal (inaudible).

I miss the classroom quite a bit, but I found--we find that the best recruiter for an AP course are the students in that course.

We also invite back--let me come down here to alumni day--we also invite back several of our alumni who are currently in college.

These, we form a panel, both in the Fall during the Christmas break--obviously (inaudible)--and also in the Fall.

We try to do this around Spring break, because that's about the time when our students are scheduled (inaudible) courses for the following year.

They talk about their experience in transitioning from high school to college, and every one of these students think--comes back and say: The courses that you have to take are Advanced Placement. These are the only courses.

They start rattling off the names of the teachers and what they did, and how it helped them, and how, even though, "I only scored a two," or perhaps I even had a student who score a one, when they went to college, people came to that individual to look at his notes that he used in high school.

That gave that student some power, some knowledge. Knowledge is power, and that gave that student a lot of motivation to continue on in college.

I think some of those statistics of

students who take AP courses and are successful in college--not only applying but are successful--kind of proves the success of this particular alumni day.

AP summer institutes -- last year, we sent eight teachers to an AP summer institute.

We sent three pre-AP teachers. Now, in the state of Texas, they allow us a reimbursement of up to $450 for each teacher as long as they teach the following year, or teach that particular course.

Of the seven that we've sent, we've sent four of them who are going to teach in AP class the following year, three of them were doing the pre-AP.

Why do we do this? We did this, because basically (inaudible) content of government, content of biology, the content of chemistry.

If we send teachers to a summer workshop, upon their arrival, their knowledge in AP kind of trickles on down to their other courses.

Remember, these guys teach four or five other courses throughout the day (inaudible) referring back to the general courses.

We find that teachers, their teaching

abilities, their knowledge and strategies, are trickled down to the other courses.

That's why we sent these teachers to work (inaudible) summer institute.

Fee waivers -- the fee waivers provided for low-income families by the College Board and also the school rebate (inaudible) school rebate, the Texas Education Agency covers $30 of every AP exam for every student.

The number (inaudible) dramatically. The Texas Education Agency also, if you have a low socioeconomic student, that student ends of (inaudible) $5.

Well, ten years ago when we started this program, we were footing the bill through Title I monies, strangely enough.

Our bill was up towards $7000, $8000 to $10,000, but we felt that was important to see this AP program (inaudible).

Fortunately, now we're being compensated (inaudible). If you are going to start up with AP course (inaudible) in a small school that has a

problem with budgets, you need to budget for these items -- traditional materials in English, mathematics.

All of our 9th and 10th grade students have TI's 83 calculators in their programs (inaudible) classes, and that costs us about $35,000 this past year.

You have to budget sometimes over two or three years, especially the sciences -- chemistry labs, biology labs.

(inaudible) recommended, then I recommend that you do have the teachers follow through with that, because one of the questions (inaudible) pre-response questions is based on (inaudible).

Satellite AP was something that we started a year before last. We didn't have enough people to make a particular class, so we offered via satellite.

I had no idea how the students are going to respond to this. (inaudible) going to come back and say: We don't like this.

Much to my chagrin, they enjoyed it, and they were very successful with the program.

This year, we are currently using it as a supplement to our physics teacher. Our physics teacher teaches physics B and physics C, trig, and calculus base.

Basically, he uses this for the physics B (inaudible) program via Ball State University, and he supplements that with the videos and meets with them every day.

Ninth grade teaming -- 9th grade teaming allows a group of students to follow the same core teachers. These core teachers are then able to do certain types of (inaudible) units throughout the year.

Also, these team members that are teaching the pre-AP courses, we have also sent them to summer institutes over the past four years.

Again, the knowledge of content comes back into class.

Summer schools -- we offer a pre-calculus course free of charge during the summer for any student who wishes to take that.

This pre-calculus course is taught by our

calculus AB and BC teacher. This summer, we are going to start offering the algebra 2 course during the summer.

It will be taught by our pre-calculus teacher, so these teachers are going to have them in the summer and during the year.

We also block off our AP calculus every day, so they meet 90 minutes every day throughout the year.

Finally, a last incentive that we offer for students (inaudible) AP course, obviously the (inaudible) is their main concern (inaudible) competitive and we offer a ten-point (inaudible) students who are enrolled in the AP courses.

I wish we had some more time, because there's quite a few programs that we use and have implemented (inaudible) tried in the past, but the (inaudible).

VOICE: (inaudible)

VOICE: We're going to pass out copies of his notes, and we're going to go to Rex now, and we will have time for--not as much time as we'll want, I

know, but we'll have time for discussion.

(Pause.)

REX BOLINGER: Bill is going to help me pass a statistical booklet for Angola High School, and there may not be one for everyone.

If not, I have cards (inaudible) maybe you can share with each other at your tables. If we don't have enough, I think I'll be close.

I am going just a few minutes. (inaudible) what Phil had to say without mirroring a lot of his comments.

I am going to take just a little different focus, and tell you that Angola High School is a rural in northeast Indiana.

Before I go too much into who we are, may I ask who you are? How many classroom teachers are with us? I see your hands.

Okay. How many principals or administrators? Okay. How many Department of Ed folks? Okay. How many others?

Who are the others? What's your capacity?

VOICE: Counselor.

VOICE: Education (inaudible).

REX BOLINGER: All right, welcome.

VOICE: (inaudible) center coordinator.

REX BOLINGER: Okay, great.

VOICE: (inaudible).

REX BOLINGER: All right, so obviously we (inaudible) educators here, and I just want to get a little feel for what some of your questions may be.

You heard Jerry Tirozzi talk this morning about school reform and what that is, and we're all talking about, and so forth.

But, I really feel like (inaudible) Angola High School went through a process that I can go back ten years to talk about the beginning of.

I really made a transition through restructuring our school day and offering classes differently (inaudible) engage (inaudible) intensive staff development.

But, it also meant that we had to do an excellent job, in our opinion, of comparing ourselves to ourselves (inaudible) change and reporting that to our communities, reporting it to all of our

(inaudible), business sector, and so forth.

To us, education is all about partnerships (inaudible) fusion of technology, and AP courses, to us, are a very critical part of that whole aspect of raising the bar and raising the standards, and so forth.

You get a little feel for some of the kinds of things that we're after, we try to keep data on everything.

One of the charts that you'll see in the booklet as you go through the back half of that booklet are things like GPAs.

When I have visitors to the school, I often show this slide (inaudible), because the blue bars represent our school (inaudible) change.

The red bars (inaudible) represent GPAs after going through that change on a semester basis.

(inaudible) you hear schools and high schools talking about block scheduling. I talk about Angola High School flexible scheduling, because it--

Block scheduling conjures up so many things in people's minds that they say: Well,

certainly that can't work because I know it doesn't work in (inaudible) -- whatever that might be.

VOICE: So what do you mean when you say "block scheduling"?

REX BOLINGER: What I mean when I say block scheduling is that we are creating a time schedule in our building where students and teachers have a better, efficient use of time, and we create it and they can become flexible around different needs.

For example, some people might say that we are on a 4X4 block schedule, where courses are compressed within a semester, and how can that be good because things like fine arts and things where we need to engage the kids all year can't work, and things like AP can't work, and so forth?

Instead of that, we make them work, and we talk about what's good for kids and what different kinds of courses might be better suited working in a different kind of structure within that schedule.

For example, I cannot accept the fact that what we thought of as a traditional (inaudible) 50

minutes of learning everyday has any impact upon learning in any other form (inaudible) traditional industrial model (inaudible).

Today, I could take our high school teachers and say: You have this group of 25 or 30 kids, and you have them all day long for four weeks.

They would be fine, because they have learned the essence of instructional strategies, ways to change. People look at us and say: Yeah, but research says kids learn better in shorter segments.

Well, we have it. We shift gears (inaudible) segments of things that work.

The issue with us and AP--and we went to partnerships to talk about (inaudible) slides.

Page 14 is all of my (inaudible) Advanced Placement scores, and so forth, and they're all going in a positive direction.

By the way, I just simply would announce to you we started this discussion ten years ago, and what we need to do to raise the standards to last (inaudible).

That has been significant for us, and it

has been more than just an award. (inaudible) validation of the process that has shown significant improvement from where we were.

Remember, we can only compare ourselves to ourselves. We are different than (inaudible) school, and we are different from each one of yours, as you are.

But, if we know where we were, and we know the standard we want to raise the bar to and we want to keep working for that, how are we doing?

That is what this report is all about. For example, when we talk about a partnership that we thought was essential, we have a small, private (inaudible) with 2000 students in our community.

(inaudible) Its focus is engineering, but it has a Bachelor's Degree department (inaudible), and so we have available higher level college-level courses in things like math, science, and English (inaudible) readily available to access (inaudible).

We were concerned about things like, when we offer our AP in two blocks, how do we do this?

A lot of our schools (inaudible) run what

they call (inaudible) match two APs together, and run them all year in 90-minutes blocks.

Addressing the gap -- we feel that our students, because of how our teachers have adjusted to teaching strategies (inaudible) and balancing their schedules, can do quite well and be prepared to take the exam in two quarters.

But, that doesn't happen the way they are given, and so we have to address that, because I don't want gaps.

I don't want kids (inaudible) January and taking the test in May, so we did a couple of different things, but the thing that works well for us--and we found, by statistics from ETS, that kids on schedules like ours who did not--who had the gap and only had two quarters were scoring (inaudible) deviation (inaudible).

Kids on schedules like ours who have at least three quarters, which is more time than everyone else, were scoring (inaudible).

So, we just said we have got to make some adjustments, and we went into partnerships because we

don't have the staff (inaudible) small schools like ours. What do you do?

(inaudible) So, we went to Tri-State University, and they partnered with us on three of our AP courses, calculus, chemistry, and AP literature.

Our kids simply, when they finished two quarters with us, simply moved to Tri-State University.

Tri-State came to us for the first year and brought their professors to our school at no charge. We have a local foundation that subsidizes their tuition (inaudible).

They are admitted to Tri-State University, and Tri-State takes their private tuition and cuts it in half, and then the foundation picks up the rest of that on a needs basis.

Kids take (inaudible) or $100 for tuition, and Tri-State, if they finish that, will award them up to eight college credits.

They have the option of sitting for the exam or taking the transcript and going on. To me,

that is a partnership, and it works quite well.

If I didn't have Tri-State in our back yard, I would go to the nearest college I could go to (inaudible) 30 miles away.

(inaudible) We offer seven AP courses. In the courses that we don't have that partnership, we have carved out of our schedule a way to offer three quarters.

Generally, we are offering it (inaudible), so they are just basically finishing up in that fourth quarter when the test comes (inaudible).

VOICE: The classes that they are taking at the university, is it the same class that they had in school?

REX BOLINGER: No, it is the next level up.

VOICE: The next level up?

REX BOLINGER: Yes. We did lots of work with those professors (inaudible) Tri-State University meeting with our AP teachers for long periods of time.

When we first started doing this, I bet

they met monthly for four months working curriculum, and now Tri-State University, after five years, has changed their schedule so that they are offering their high-level calculus course on our schedule for their students, and it is working beautifully.

We found there were a few problems with their professors coming to our school and colleges thinking that that experience was a Tri-State University course, because we started to get questions like: (inaudible) one of your teachers or Tri-State's? (inaudible) Where was it taught, on your campus or at the University--on our campus? (inaudible)

A few places were saying things like that, and now our kids are being immersed into the Tri-State campus, and what we are hearing, by and large over and over, is our kids are tough (inaudible).

Our kids are leading all (inaudible) calculus courses, English courses, and things, and sitting side by side with the college students.

The other partnership I want to mention, and then I want (inaudible) is that there are four

high schools around us.

We have 850 students. When we started this, we had 750. Demographics suggest we are going to level off pretty much, and I hope we do (inaudible).

But, we have four small schools around us that are (inaudible) 500 students, and they don't offer any AP, so what we are doing is a county-wide collaboration of matching our schedules so their kids can get (inaudible).

(inaudible) average, we have about three or four kids from each of those schools in our AP classes, and we are now moving on (inaudible) Tri-State connection, like I mentioned our kids are doing.

The next step (inaudible) reason I am excited about being here and trying to go for one of these grants is that we are going to look at the partnership of, okay, let's offer the AP courses now (inaudible) high school and your courses, and get one course going there so our kids can go to those courses.

That drive--the farthest drive is about ten miles, and on our schedule, with the time that we can play (inaudible) morning and afternoons, we can get our kids there either by running shuttles, or we do let them drive on their own (inaudible) their own transportation, and some do.

We will get them there one way or another, but that is the (inaudible) kind of partnership we are looking at.

So, we have small universities and small schools within a ten-mile radius (inaudible) resources (inaudible). That's enough from me.

VOICE: Well, it's not enough, but it will be enough right now, so we can go to Bob.

(Pause.)

VOICE: I was asked to talk just a minute about the demographics of our school. It is in the front sections of the book that you have.

But, our diversity is mainly around socioeconomic levels. We are about three percent minority but about 40 or so percent free and reduced lunch, and (inaudible), and only about 25 percent

that apply.

So, that gives you a little bit of background about our rural community.

BOB MOSES: My name is Bob Moses. I asked Rex to do (inaudible) trying to figure out my place in the discussion.

(inaudible) asked me to come here a couple of weeks ago (inaudible) Spanish-speaking, and Rex's school is overwhelmingly rural white.

I think my job is to talk about what is going on (inaudible) African-Americans, and it struck me how segregated our schools are (inaudible).

This is across the country, and of course the AP issue (inaudible) heightens that (inaudible) equity (inaudible).

I will tell you a little story, and then that will lead into what I do (inaudible).

I am actually not from Mississippi. (inaudible) for the last six years. I go home on weekends to Cambridge, Massachusetts.

About six years ago, we invited (inaudible) Edwards from Fayetteville, North Carolina

to give a workshop (inaudible) middle school students on the (inaudible).

It was their first middle school (inaudible). It was their first introduction (inaudible).

We asked Theo if we could bring some middle school students into the workshop, because I was working in Jackson with middle school students at Brinkley Middle School.

So, he said yes, and we did. Well, the bottom line was that, in the following school year, not one of the middle school teachers felt comfortable enough with the (inaudible) to take it out and use it in the classroom.

(inaudible) They were from the rural schools in Mississippi, but the middle school students became leaders in their classes (inaudible).

They were willing to get up in front of their peers and use those (inaudible) and show the students what they knew.

It opened a light bulb for some of us, because it occurred to us that (inaudible) is a tool

which they feel is worthy of their (inaudible).

(inaudible) calculator is worthy of their attention in a way that they don't feel about (inaudible) mathematics, because they have grown up--this younger generation--pushing buttons to make images change on screens.

This is the way they have learned a lot of what they know, and it is the way that they entertain themselves for hours on end.

So, here is a technology which they resonate, and so, based on that, February 26th--this is five or six years later--those students have worked their way through high school.

They have formed themselves into what they call the Young People's Project. They are about over a hundred strong.

They work after school (inaudible) after school workshops for themselves (inaudible) middle school students.

On February 26, (inaudible) they will run a workshop (inaudible) middle school, having contracted themselves (inaudible) public school

system to run a workshop on (inaudible) calculators to prepare these middle school students who are in algebra, for the statewide Algebra 1 test, because in Mississippi, if you are in a class which is labeled Algebra 1, then you have to take the statewide Algebra 1 test.

So, these students are (inaudible) project what we think of as the demand side of this education problem. How are you going to get students to demand that they should be educated when they are faced with situations where there is a shortage of supply in terms of the whole educational system (inaudible).

Actually, Mr. Amos here is from Washington County (inaudible) some of the students from Simmons will be bussed down to this workshop, which (inaudible) February 26th (inaudible).

I do a long distance learning class with some of the students at Simmons High School (inaudible) Jackson, Mississippi.

Now, I followed some of our students from 8th grade at Brinkley Middle School into the high school about five years ago.

At that time, I was working in the 8th grade Algebra 1 classes (inaudible) teacher. We had about 120 students that year took Algebra 1 in the 8th grade.

This, in itself, has been a political battle. (inaudible) Mr. Chavez's discussion. I am not sure I (inaudible).

But, I thought I heard him say that they are using the AP calculus as a motivational tool (inaudible), so even though students get a 1 or a 2 on the AP exam, right, they are encouraged to take that course.

This helps them when they get to college.

VOICE: Most definitely.

BOB MOSES: So, you are not using that course as a gatekeeper. You are using that course as a motivation tool to get kids in.

They are better off (inaudible) even if they have to repeat that course, because they can't get credit for it if they get a 1 or a 2 on the exam.

But, they are better off in college if they have to repeat that course (inaudible) initial

success (inaudible) experience with it.

VOICE: And if they start early, we have several students in the BC class, which is basically the second year of calculus.

So, they have two years the earlier (inaudible).

BOB MOSES: (inaudible) Now, in Mississippi, we have a really retrograde policy in place now around (inaudible) equivalent way of approaching Algebra 1 in the middle school.

The algebra project wanted to use Algebra 1 in the middle school like they are using with the calculus making the transition from high school to college.

That is, make this a motivational (inaudible). Bring as many students (inaudible) that you can and make them have a successful experience.

(inaudible) if they then have to do it again in high school, they will still be better off than if they do (inaudible) 8th grade math.

(inaudible) The statewide policy for examining currently works against them, because it is

the school system that gets graded on whether or not they are doing a good job, okay?

All the high school students have to take the exam, because they need Algebra 1 to graduate.

So, they look to the middle schools to (inaudible) one or two classes in a given school. They want as few students as they can get who are going to get high grades at the Algebra 1 statewide test to take Algebra 1 in the 8th grade, right?

So, there is an issue here, because we talk about AP calculus (inaudible), but there is an issue of (inaudible), right?

Where is everybody standing, and how do we raise that floor, because the way to get all of our students really looking to have an option, on the other hand, is to have a floor that is high enough for everybody to stand on so they can think that they might have an option here (inaudible) course.

So, the algebra project in places where we work, we are trying to work to find the floor. Now, AP (inaudible), but the question is what is the appropriate floor?

(inaudible) appropriate floor is that all of the students in the project should engage the (inaudible) sequence (inaudible) high school.

This is really the only (inaudible) floor for technology and economy (inaudible), and we think of it as a citizenship (inaudible).

We think that the students who don't do that will really not be positioned for citizenship. It is not just a question of career.

(inaudible) just as reading and writing is basic, that is, that math has moved to the point, because of the shifts in technology, so that your math literacy is as important for the democracy of this country as reading and writing was in the industrial ages.

You have shifted from a technology (inaudible) manual labor, physical right (inaudible) replaced physical work with technology, which is (inaudible) your mind.

That is an enormous technological shift, and it has brought a new literacy, which is the math literacy (inaudible) technology crunches the numbers.

So, you need people who can interpret the information, which is partially encoded (inaudible) quantitative.

So, you have to have a literate citizenry to work this technology to have a democracy, and so math literacy really is on the table just like reading and writing was in the industrial age.

Now, AP courses (inaudible) ceiling, right, but the real question is, if we are going to get access to these courses, how do we (inaudible) floor?

VOICE: Bob, thank you. That was great. We are going to go right to Diana, and our AP teacher. Then, we will have time for a little bit of discussion.

(Pause.)

VOICES: (Simultaneous conversation.)

VOICES: (inaudible) Play?

VOICE: We had a parents' night at the beginning of school, and AP parents' night to explain to the parents what the scores are, that the average school is on the bell curve, and it is a 3, and you

are doing well.

Basically, the ten points that we have added we have explained that to the parents, just basically go over the whole program with the parents.

A lot of times, students-- We had one student who was studying until 2:00 o'clock in the morning, and the parent was saying this kid is losing weight, and things of that nature.

(inaudible) cartoons. It shows six frames, and there is a student kind of playing the drums, has the book open.

Finally, in the last frame: I got an F on the paper. What did you study? I studied for six hours.

So, we talk about study skills, how to budget your time, how to manage your time, how to organize, very basic concepts that some of these students don't have.

We have to take the initiative to help them out in this way. In terms of demand, again, once they hear about what you do with the course, they want to sign up.

VOICE: Rex, any thoughts? Any additional thoughts on getting the students the demand?

REX BOLINGER: I hear what you are saying about concerns over GPA, and if they don't get a certain grade: Do I want to take those courses?

We tried to address some of that. We weight all of our AP courses, so that helps some. I think our focus seems to be: Give me lots and lots more 3's. Give me the kids--

We have all got the kids that will get the 4's and 5's, but, as we are talking about, give me more kids that will take the experience and push that.

We also try to offer the incentive of that that we work particularly with our freshmen orientation when that group comes in, and show the parents how your students can get virtually one year of college under their belt almost tuition-free if they start planning prior to freshman year, really.

We are talking about that in the middle school, but those things have been an incentive, but it is really raising that floor, as Bob talked about.

We know what the ceiling is, but doing away with general studies' courses and offering algebra over four quarters--

You keep taking those quarters as you need them, but you have to have that to graduate in a class beyond that kind of thing.

I think it helps. It does, the whole level.

VOICE: Thanks. Other questions? Right here.

VOICE: I have a question for Diana on the state department of education (inaudible) states-funded gifted program, one of our requirements is that the curriculum is differentiated (inaudible) gifted kids.

So, what you said about wanting all these kids to take advantage of your course (inaudible). We hear that a lot, that they provide enrichment for everybody (inaudible) everybody else.

We are saying you have got to differentiate the instruction for your gifted kid. How would you answer that (inaudible)?

VOICE: Well, it is a problem, because that was the only way I was even able to start an AP course originally in my small school was with gifted and talented state money.

We did have to screen kids three ways and do all that stuff. We eventually abandoned that, because we wanted to open it up to more kids.

I guess I would look at reexamining the notion of gifted. What (inaudible) bars kids from an AP English course is generally reading level, not intellectual capacity but reading level.

Somewhere along the line, they haven't learned to read, and so they-- When you do it this way, they can--

I've got a kid, a special ed kid but he is a second grade level reader. He doesn't write at all, but he is the kid who asked me (inaudible), Ms. Kraus, is Bill Clinton a tragic hero?

That was a great question. None of my seniors asked me that question, and so I reiterate, gifted is something that we need to be careful, because I think we label kids--

We label them in special ed too quickly, and we label them gifted too quickly, and it creates groups, and it creates exclusion.

I would like to see all that opened up. AP shouldn't be just for gifted kids.

VOICE: I would like to hear some strategies actually experienced by any of you in dealing with teachers, parents.

I think everyone would agree (inaudible) material is the way that everyone should be teaching in the classroom (inaudible).

We agree that enabling and empowering students to demand more of their curriculum is a good thing philosophically.

But, I really need to hear more than just bar graphs. I need to hear what you do-- Tell me about a conversation you have had with a teacher who has been dragging along a classroom over 25 years waiting for retirement.

(inaudible) I need to hear real strategies, not just programmatic (inaudible)

(inaudible) doesn't make an impact in

making policies.

VOICE: I would like to take a quick shot at that one, and then we will go from there. The interaction between the student in the classroom (inaudible).

We want the highest level professional that we can have in that interaction. In our case, it involved going to what I would determine as the--in a staff of 54, the ten best examples of professionalism and the kind of presentation you saw here, and develop peer coaching teams around that situation, and devise what we call 2+2 program, where we bring substitutes into the building to cover teachers during--when they have a tutoring period so they can go out and watch other teachers teach.

I am convinced that it is within that kind of a setting that we actually raise our expectations and our skill level of teaching, where I could go in and watch that on a daily basis by walking down the hall rather than something else.

Beyond that, then, we are focused yearly on setting those goals and looking at our student

data on what our students are achieving and setting personal goals around those things and working within the building to facilitate those peer coaching teams.

VOICE: The state board of education has three different types of diplomas. One of them is the distinguished diploma, which says that you need to take three upper advanced classes (inaudible) AP and score a three or better to receive that credit.

That is definitely an incentive for those students (inaudible) honors.

We bring in colleges and have them speak to the parents and their admission committee, and I specifically (inaudible) what do you look at besides GPA in the interview?

I mean, what kind of courses are you looking at? All the time, they say we look at the AP courses. I say do you look at the grade? No. Look at the score? No, we look at the fact that that student took that course, and it is the content.

Teachers-- I had a teacher who--third year teacher, very enthusiastic teacher. Finally, I got her to do the government class (inaudible)

unfortunately, because of some other problems.

She went to that week-long summer institute, and she came back a changed person. She knew what was expected of her.

She knew-- She saw other teachers in various situations doing the same thing, getting by, innovating, you know, motivating kids, trying different things, using different strategies.

We gave her the opportunity to order the materials (inaudible). The quality of her class has changed 100 percent over the last two years.

I did several AP workshops, week-long summer institutes for several years during my time in teaching biology.

I saw groups of 30, 40 teachers. This is prior to (inaudible) initiative for their AP IB initiative.

In the crowd, we had some teachers (inaudible) 25 years. You ain't' going to change them. They ain't going to learn. How do you expect us to do (inaudible) in the lab? I don't even have enough money for blah, blah, blah, blah, blah, blah,

blah.

Well, I started teaching the AP class my first year in a room that had one electrical outlet, and you do it.

When people talk to other teachers and teachers are given the chance to dialogue and to talk about some of the situations (inaudible), I feel that that's the best time out for teachers, especially during the summer when they are isolated from everything else and they are there day and night.

They wake up. They talk about AP. I mean, my God, what is a teacher's dream, spending the whole week with a bunch--

(End Tape Side A.)

(Tape Side B.)

VOICE: It's not another workshop. We are talking about content, which is what we want to set forth.

VOICE: Bob? Bob, did you want to add

something?

VOICE: There are two sets of populations for our strategy. One is the students, and the other the teachers.

Let me talk about the students first. What has happened talking about the algebra project now, which is spread (inaudible) country working in different schools that are targeting minority students, both in the inner city and rural.

I am talking about an evolutionary process, so one strategy was to grow something, right, not to try to impose something (inaudible).

So, I started with my own children as a parent in '82 and went into my oldest daughter's classroom where they weren't offering algebra and taught her and some other students algebra, right?

That is how the project got started. Now, my children are in their 20's, and two of them are working full time in Mississippi.

One of them, my oldest son, really has grown this group of young people, and he did something that I couldn't do.

He started when he had just come out of college, and he was still in his early 20's. He made it cool to stand up in front of young people and do mathematics.

I could stand up in front of them and tell them you should do mathematics, but I couldn't make it cool, right?

(Laughter.)

VOICE: But, being a young person, he made it cool for them to do that, right, and so you have young people now who feel it is cool to stand up and do that.

We took-- I just had a gig out at Deanza College just this past weekend, which is a little below San Francisco.

At thsi point now when I go out to do these gigs, I take some students with me, and so we had two 8th graders and my oldest daughter, who is in her late 20's.

She was supervising them, and they went to work in the algebra project (inaudible) school in San Francisco (inaudible).

They were teaching the students there their math (inaudible). Well, they started out with the prime number rap, right?

They have a little rap song, right, which tells the prime numbers, right, and they had the kids singing the prime number rap.

So, they have made it cool, right, to take the hip-hop culture. That is the issue here. Can you get this culture and move it into mathematics, right, because there is nothing to say that we have to do mathematics with European culture, right?

Prime numbers don't care whether you talk about them in European culture or you talk about them with the rap music, right? They couldn't care less.

(Laughter.)

VOICE: So, this is one of the strategies. What we have seen now with the other strategy is to develop the concept of a youth math literacy work, that these are young people and they have work to do.

They have organized themselves, actually, as a little business, and they run their little business, and they actually went and contracted

themselves with the Jackson public school system to do the workshops.

So, they have ownership over this, so that is another strategy.

The question for the kids has got to be, well, what's for me in this math? It can't be what's for me ten years down the road.

They can't see ten years down the road, so what is it for me now in this math? So, there is a strategy to take this concept and math literacy workers and move it like sports.

You have got to practice like you practice sports. You've got to perform like you perform in sports. You've got to get up in front of an audience of your peers and perform, right, make a demand on them.

So, there is a strategy here, I mean, to make this happen, because I don't see in the teaching side of this deal where we are going to get the resources (inaudible).

I mean, we haven't even got an agreement at the university level that the education people

should sit down at the same table with the math department and work out a strategy around how you are going to prepare math teachers.

We don't have that across this country, so, with the young people, at least you have a strategy which says, well, here are some resources that could be tapped.

If you can find how to tap them, you might move some of the resources eventually.

So, they move their parents. The young kids move their parents, so, if you get them involved, you bring the parents in with them.

So, that is the other part of the strategy about parents, but this happens-- The school is the place where we are recruiting.

But, then the activity, even if it takes place in a school building, is happening outside of the regular school context.

It is the kids who are running and doing things. On the teachers' side, the strategy is to try to professionalize teaching.

Teaching is just not a profession the way

that medicine, or so forth. Teachers just don't have a kind of (inaudible) control over their profession, the way that--

So, one thing we try to do in the algebra project is create some kind of avenues so that teachers can really get some more control through training teachers to train other teachers, and so forth.

So, we have a train the trainer program, which is driven by teachers who have risen through the program, and they begin to experience themselves at a policy level about what to do about the problems.

VOICE: Thank you so much, Bob. I am so sorry that our time is up. I want to thank the panelists. You did a great job, and you are doing great work at home.

Thank all of you for coming, and I have got some pamphlets here about numerical in high schools, a little advertising that I am going to bring around the tables real quickly before you leave.

But, thank you so much, and it is time for a little break, and then next session--

(Applause.)

(End Tape Side B.)

TAPE 2

(Tape Side A.)

Tape side begins mid-sentence.

VOICE: --Education here in Washington, and I am the Director of something called the New American High Schools Initiative.

I left little red, white, and blue pamphlets on your tables, so you can take that with you and take a look at that when you have time.

Please visit our Web site. I want to leave all the time for our panelists, because they are so good, so I am not going to talk a lot about New American High Schools.

But, it is a terrific kind of ground-

breaking initiative that has really spurred a lot of interest, both within the Department and nationally around high school reform issues.

I am fortunate enough to be able to moderate this panel. It is a very easy job, because they do all the work.

I am going to introduce you to our panelists and get started. At my far left is Bob Moses, who is the founder and President of the Algebra Project.

I said before he was from Mississippi. He is not. The project is based in Mississippi. He is from Cambridge, Massachusetts.

To Bob's right is Rex Bolinger, who is the Principal of Angola High School in Angola, Indiana.

To Rex's right is Phil Chavez, who is the Assistant Principal at Southside High School in San Antonio, Texas.

Last but not least is Diana Kraus, who is an AP English teacher at Mount Ararat High School. I am going to say Brunswick, and it is not. It is Tomson, Maine.

So, we are going to start off with Phil. Each of our presenters is going to take about ten minutes to give you an overview of the work that they are doing, some of the successes that they have had--lots of successes with incorporating AP coursework into their curriculum at their schools, some of the pitfalls and problems that they faced.

Then, we will open this up for discussion. If you do have a quick question while the presenter is up, certainly feel free to ask.

PHIL CHAVEZ: I taught AP Biology for 13 years, and I am used to the (inaudible). Let me tell you about Southside High School.

We are a small rural school located in the southern apex of San Antonio. We have (inaudible) Southside (inaudible) square miles inside the city but a very poor area called (inaudible).

Basically, I guess, to give you an example, (inaudible) about eight or nine years ago. All rivers run south, so basically they have a lot of sewage treatment plants (inaudible) area.

(inaudible) We don't have much revenue.

There's shopping centers (inaudible) municipal areas.

Basically, let me give you a little breakdown of our students. Seventy-seven (77) percent of our students are low socioeconomic (inaudible); 81 percent of our students are Hispanic.

Last year, we had 75 percent of our students go on to college. (inaudible) a follow-up study that we have done with some of these students.

Currently, the AP courses that we offer, biology, physics B and C (inaudible), calculus (inaudible), calculus BC, English literature, (inaudible) studio art, Spanish language. It should be Spanish literature.

(inaudible) Spanish. Several years ago, we started an AP program. Basically, we only had, I would say, 550 students back then.

Only 20 students took the SAT (inaudible). They are not going to go on to college (inaudible), not so much the kids.

So, we had to change that, so we brought in AP (inaudible) school. Spanish AP (inaudible) fortunately we had a gentleman by the name of

(inaudible) principal (inaudible).

Strangely enough, a majority of our students scored 4 and 5. Wow. (inaudible) rise to meet the expectations.

Next year, we are going to implement government, economics, (inaudible), music theory, statistics (inaudible), computer science (inaudible), which we used to offer a couple of years ago (inaudible) chemistry.

(inaudible) I guess the major component that a school has to do in order to get (inaudible) is to look at (inaudible)

(inaudible) mindset that you are going to provide challenging courses for all your students, and also with that academic excellence, you are going to have to ensure student success.

That means you are going to have to help them. You are going to have to help them after school. You are going to have to help them before school.

Around test time, perhaps a month before, you might have to give a whole weekend and do weekend

type things at home.

These are the types of things that our teachers do with our students. Our students come to school (inaudible) with a lot of things on their minds.

They come with extra luggage, if you will, of what happened the night before, living conditions, food, and things of that nature.

Several of our students have some problems at home. (inaudible) expected to perform, so there are also other kinds of counseling services that we offer for our students across (inaudible).

(inaudible) department chairs initially and the counselors, and basically we have to look at offering effective teaching strand in each discipline.

That doesn't mean that (inaudible) offer AP Biology. Last year, you took chemistry (inaudible) physical science.

Boom. Here you are in AP Biology class doing college level work using a computer assisted graphics to graph data.

(inaudible) These kinds of skills, if you will, need to be brought down in the 9th, 10th, 11th grades, and even further down and extended down to the 6th, 7th, and 8th grades.

(inaudible) We look at the AP course being the capstone course for that particular strand. Now, it is very important that you have a goal set up what is going to happen later on, because, when teachers go back (inaudible) analyze their curriculum 6 through 12--you talk about vertical teaming--there is a lot of repetition, a lot of teaching of the same concepts, again, and certain topics.

So, it is very important that teachers are given time to dialogue. Many times, they are inside their classroom and they are expected to teach, and there is always a lot of finger-pointing: Well, down at the middle school (inaudible).

Well, it is very interesting when you get the high school and middle school together, because it is very productive. A very productive thing results.

Master schedule -- working on the master

schedule. Be sure that you allow students to take these courses.

Now, in small rural schools where the focus of the entire community is the high school or the school campus, there is other things that get in the way.

There's athletics in Texas (inaudible) football. (inaudible) There's athletics. There's band. There's other ROTC, other things to take the students away.

We currently have what is called an AP modified block schedule. (inaudible) one of those ambivalent words. What's block?

(inaudible) every other day. In many cases, we will combine two courses to offer throughout the year. In some cases, we might offer a course everyday (inaudible) calculus (inaudible).

They are offered everyday for 90 minutes. We had done that initially with our English, but the English teacher came back and said: I am not comfortable with this every day; 90 minutes every day would be fine.

Great. So, we fixed the master schedule accordingly. (inaudible) courses like AP calculus and AP physics.

Some of these things might be (inaudible) look for in small school. (inaudible) ten of these things, and we have to make sure that everybody (inaudible).

(inaudible) vertical teaming -- last (inaudible) middle school. It is very much alike what we have in middle schools.

(inaudible) vertical teaming through the 10th grade, but as administration changes, boards of education change, and we had (inaudible) next year in the 9th grade.

We find that our attendance rate improves. We used to have a very high number of students missing school in 9th grade and 12th grade.

(inaudible) more frequently after the teaming. (inaudible) Also, their GPA (inaudible) more successful. We had less students failing.

One big problem that we have--I don't know if it is unique to our school, or what. But, our

teachers are kind of reluctant to call parents.

First of all, we have a lot of migration between (inaudible). I think we had 300 people come and go (inaudible). That's quite a bit, 30 percent of the population since August.

Sometimes phone numbers (inaudible), so we don't have-- There is always an excuse (inaudible). (inaudible) four teachers that met with parents.

I never attended so many parent (inaudible) as I did when we had teaming, because the teachers were more encouraged to call the parents.

(inaudible) recruitment into AP (inaudible) 1000 students, you are looking at a certain number of students that are going to be taking, as I said, bank, AP physics, AP English.

Okay, how do you lure these guys in? Well, it has been my experience that you allow students to come into AP courses with little resistance, okay?

You don't have many barriers to enter the AP course, because the students are aware (inaudible) class. The word gets out.

Not only does it get it, but it is rigorous. It is kind of fun. They really enjoy it. They enjoy challenge.

So, I find that the students in the AP class are students who have taken an AP class are the best recruiters to get people into the AP courses.

We have an electives fair (inaudible) where every teacher comes down and has a little booth. We bring up the 8th graders to show them (inaudible) courses.

Of course, we allow our 9th, 10th, 11th graders to come in and talk to the AP teachers, and that way they pass out a course syllabus, course description, and (inaudible).

In conjunction with this, we have an alumni day. Most of our students-- A majority of our students are going to be first-time graduates from high school, okay, the population we are dealing with.

You know, there is not a lot of encouragement

to-- There is a lot of encouragement to be the first

one in the family to graduate, but there is not a lot of encouragement to go past that.

We bring back alumni students, and I tell you the greatest effect (inaudible) least number of years (inaudible).

(inaudible) are great, because they know that group (inaudible), but we bring back people who have graduated from graduate school who have taken AP courses.

They talk about the (inaudible) transition from high school to college and what best helped them (inaudible).

They talk about the AP course that I took with so and so, and we did this, and this is what we did in college.

That, ladies and gentlemen, (inaudible) 11th or 10th graders just glued. You can hear a pin drop, so it is quite invigorating that we have this opportunity to bring back our students (inaudible).

Of course, we bring them back in December when they are off from their college break, and we also try to schedule some stuff around Spring break,

because that is when students are registering for their courses for the following year.

(inaudible) AP summer institutes -- I was a presenter at several AP week-long institutes for several years--about six or seven years (inaudible) New Mexico and Oklahoma.

Nothing is better for these teachers. (inaudible) Advanced Placement and spend an entire week. I mean, what could be better (inaudible)

(inaudible) spend a whole week with other biology teachers talking about biology. It is great. (inaudible) 8:00 o'clock in the morning.

A lot of people would come back after dinner to look at a lab--to get the results of (inaudible) from 6:00 until 8:00 and 9:00 o'clock at night.

I mean, it was great. I have seen teachers (inaudible) principal sent me. With that kind of attitude, at the end of the week they are invigorated.

They have taught for 25 years (inaudible) invigorated in these AP workshops.

The state of Texas allows a reimbursement of $450 per AP institute if the teacher is going to teach this institute for the first time the following year.

This past year, I sent seven or eight--I can't remember. But, out of that group, three of them were not going to teach an AP class the following year, but they were teaching our AP classes.

(inaudible) teachers (inaudible) pre-AP class. Well, what does that do to a teacher if you have one calculus class or one AP class?

Well, they have four or five other classes in that discipline. Time and time again, they have come back with these ideas and the level of expectation (inaudible) in every class they teach.

(inaudible) past summer was the best way for you to spend your money (inaudible) Learn about AP, they find out that they are not the only one that doesn't have (inaudible).

(inaudible) lab. They get ideas, so, again, giving teachers time to dialogue and to talk

about their discipline is very good.

(inaudible) In addition to the fee waivers offered by the College Board and the fee waiver that a school may forego, (inaudible) covers $30 of each exam.

Francis Brown (inaudible). For students who (inaudible). Well, prior to all this, before we had (inaudible) pay for these exams, we, at the school, absorbed all costs of the exams.

(inaudible) $5000, $6000, $7000 (inaudible). We had so many at the time.

Budgets -- there are some AP books in biology that are adopted, and calculus, that are on the recommended reading list for AP, that are adopted by the state of Texas.

But, it may vary. You know, teachers like to use the book that they have had before (inaudible) really like this material.

A lot of times (inaudible) something of that nature or additional material in science (inaudible).

We provide (inaudible) for all of our

freshmen, all of our sophomores, (inaudible) 11th and 12th, so all the students in the 9th grade learn how to work a TI-83.

We currently use the (inaudible) curriculum (inaudible) Western Michigan University by a grant out of National Science Foundation (inaudible) use these calculators to learn (inaudible) mathematics.

(inaudible) but they are given data, and they are supposed to manipulate that data and then provide their equations.

Satellite AP -- Ball State University offers a satellite course for Advanced Placement. I didn't know how students were going to respond to this.

I thought looking at a T.V. was going to be very boring, but they love it. Again, I think it may be just that they are used to it. They have grown up with it.

So, there is a lot of interaction. Next year, we are going to set up a two-way video conference lab with our (inaudible) grant

(inaudible).

(inaudible) so we can have real time instruction. Finally, the (inaudible) teaming. Again, the same concept that we have in middle schools.

Let me go on to the summer school. We have always offered pre-calculus for students who want to take pre-calculus during the summer.

It is offered by our calculus and our AP calculus teacher. This is his project. It has been his project for the last eight years.

We have a large number of students enrolled, so they have pre-calculus during the summer, and they (inaudible) the following year.

Basically, he has them for (inaudible) school. We are going to try this with our Algebra 2 teacher (inaudible) teaches pre-calculus, to offer the Algebra 2.

(inaudible) a little bit more time with calculus and pre-calculus courses. The last thing is we offer an incentive for GPAs, and additional ten points for students who take an AP class.

That's always a concern (inaudible) much more difficult class (inaudible) courses. Okay. I can stay up here with a lot more stuff--

VOICE: No, you cannot. No, that was great, Phil. Thank you so much, and Phil does have hand-outs, and now we are going to go to Rex from the midwest.

(Pause.)

REX BOLINGER: Phil is helping me pass out some things about our school (inaudible). I am going to have you keep in mind what Phil just said to you.

I am going to take a little different approach on things that have happened in our schools, and some things I think haven't happened (inaudible) regardless if it is AP or any part of your school.

You may not have enough of these per table, but, if you can share a bit, and if you would like one I can get you my card, and (inaudible) get it to you.

Could I see a show of hands for how many are AP teachers in here? All right (inaudible) Department of Ed folks? (inaudible) people? Others?

Who are you?

Just tell me--

VOICE: Central office.

VOICE: State department.

REX BOLINGER: State department. Okay, thank you.

VOICE: University (inaudible).

REX BOLINGER: University. Fine, okay.

VOICES: (Simultaneous conversation.)

REX BOLINGER: It helps me frame a little bit what I would like to say to you (inaudible). I believe that you can't simply say we are going to begin offering AP (inaudible)

(inaudible) offer more things (inaudible) think that we are going to have kids show up for those classes. We have got to start (inaudible) elementary levels.

We heard Dr. Munroe yesterday talk about setting those expectations, and so forth, and frankly I look at the high school (inaudible) evolution, if you will, over the last several decades and think how are we going to expect anything different unless we

change this organization?

We know a lot about how kids learn. We know a lot about effective teaching. We know a lot from the research about how to raise test scores.

But, yet, do we provide a vehicle for that to happen? If the stand now is that all kids succeed, not just the 50 percent that did in 1950 but all kids, I am convinced that my vision and the vision of many high school principals in this nation is that it is going to include partnerships and it is going to be dramatically affected by technology.

Now, after having said that, in Angola High School ten years ago we started working a lot with how to improve interaction with kids and teachers, improving teaching strategies, what we know about how kids learn (inaudible), and all those things.

But, it wasn't until we decided to restructure our day we felt that we could start incorporating some of those in the classroom (inaudible).

We get a number of visitors to our school,

and frankly I like to keep data on everything (inaudible) number to.

I will just show you one thing within that report from about (inaudible) bar graphs and things like that.

Some people like them. Some don't. I am simply saying that I have to have them to communicate to my public and others how we are doing.

I can only compare ourselves to ourselves. We are a rural school in rural Indiana with about three percent minority and lots of diversity in socioeconomic status.

So, as a result, I have to compare where we have been and where we are going, and I want to improve that.

The blue bars show where we were (inaudible) baseline prior to moving to flexible scheduling in Angola High School.

Some people would say that we are on a four block schedule. I don't like to say that, because (inaudible) people's minds about, oh, I know that won't work (inaudible).

(inaudible) work for you (inaudible) suggests that high schools should look at ways where you break down the teacher load.

Instead of teachers (inaudible) 150 kids in a teaching (inaudible) semester, break that down. There are several schedules that do that.

Give kids an opportunity to repeat courses in a year if they need to and still (inaudible) graduation.

Or, in our case, (inaudible) better statistics in our SATs, our AP scores, and ACT scores simply because we are having more kids taking higher level courses sooner.

Kids can take algebra and geometry in one year in our school, and many do, and we let them fly. We don't hold them back.

My traditional schedule is holding them back. You can only take one math course a year, because that is juggling six or seven other things, that is all you can do.

We have kids taking lots of those things. What are we going to do with them when they become

juniors and they finish AP Calculus?

That was our challenge, so we went to a partnership. Fortunately, in my community, we have a small, private college of 2000 students.

It is an engineering school (inaudible) small, but it is there. It's good, and we link with them in three oi our AP courses where, when kids finish our AP courses, they can move into their more advanced chemistry, AP literature--English literature--and also calculus.

The nice thing about that for us is that, if we work with them for about three years-- Sometimes higher education folks are strange breeds of people.

But, we sat down with them for about a year working on a monthly basis to the point where they are seeing--

By the way, their enrollment has increased about 20 percent since they started working with local high schools.

We are one of four rural high schools around them, and I am going to talk about that

partnership in just a moment.

But, they started by sending professors to our campus. Now, our kids are going to them, and they have changed their schedule to match our high school schedule for their students and ours (inaudible).

(inaudible) The three rural schools around us are (inaudible) Demographics suggests that we will stay pretty stable for the next few years.

But, the schools around us about ten miles away have anywhere from 350 to 500 students and offer no AP courses.

So, we partner with them, and they send us about three or four kids to our schools, and what we are working on now, through the potential of some of these grants (inaudible) is to come up with a structure where we will start offering things (inaudible) in those schools that we don't offer to our kids (inaudible).

We have a pretty nice partnership (inaudible) breaking down the anonymity in the large schools (inaudible) 850 (inaudible) category.

This is our approach rather than, in some areas, one county school of 2000 kids, and we have (inaudible) programs. Let's partner with them.

The big piece for us is-- We heard Richard Riley say the high schools of the future have to become the launching pad for students (inaudible) experiences (inaudible) experiences back (inaudible) make sense to them.

(inaudible) that I think that kids will continue to raise the bar is if it makes sense in their minds. If we send 160 kids a year out into nine week one hour or two hour--one to two hour (inaudible) community (inaudible) we call it (inaudible).

(inaudible) industries and businesses have to develop a curriculum, and those students can go there for one of our classes, just like they would elect any other class.

(inaudible) amazed at how they are making connections on why it is important to take higher level courses.

It doesn't take long working with a

quality control person (inaudible) one senior say this is where I want to be.

Her classmates looked at her (inaudible) what is quality control? They had no clue, either (inaudible) nine weeks (inaudible) working with that type of person (inaudible).

So, anyway, it is a bigger picture than just how you get to AP. I think it is incredibly changing the whole school. And how you deliver things.

Then, these things come along (inaudible) ceiling, if you will (inaudible).

VOICE: Thank you so much, Rex. Bob Moses.

BOB MOSES: How is everybody? I would like to tell you a story (inaudible) background (inaudible). About two years ago, Columbia University held what they are calling their Skylight Teacher Education Conference in New York at the Marriott Hotel.

I was asked to come to do a workshop, so I do my work in Jackson, Mississippi. I don't live

there. I live in Cambridge.

So, I asked them if I could bring someone, so I took the teacher (inaudible) 6th grade teacher in the algebra project at Brinkley Middle School, and a graduate of that school who is in high school to present.

The three of us presented to the people that came to the workshop, and after the workshop some administrators from a school district right outside Washington, D.C. came up and said that they--

They were really taken by the student and his presentation, and said that they would like to have him or some other student come and present to the (inaudible).

So, we talked back and forth and worked out a deal where, a year ago last Fall, we took 25 students up to this school system-- What's? It is right outside D.C., somewhere--

VOICE: Chevy Chase.

BOB MOSES: North and west of D.C.

VOICE: Montgomery County?

BOB MOSES: Montgomery County. They did a workshop for about 125 teachers. (inaudible) all day in different workshops.

They showed the teachers their different things that they do with the graphic calculator and other what we call algebra project (inaudible).

It is a concept that we have grown within the algebra project of (inaudible) literacy work that young people learn something well enough so that they can teach it to their peers, or in this case, also teachers.

Then, how this came about in the project, and for me it is a central strategy of where are we going to find the resources to actually tackle this issue (inaudible).

What we are dealing with is what we call the floor, right. The AP courses, I think of in my mind, as a ceiling (inaudible) highest level is high school courses.

But, we are really trying to define what we think is an appropriate floor for every student (inaudible).

We have various criteria for why that is an issue for students, but in 1982 as a parent, I went into my oldest child's 8th grade math class and taught her algebra because, in Martin Luther King School (inaudible) Cambridge, they didn't have a teacher in her (inaudible).

Her 8th grade teacher didn't know (inaudible). My job in the family had been to do math with our children. We have four children.

So, of course, (inaudible) the years I have been working with my oldest daughter, and she was ready to do algebra.

So, she didn't want to do two maths--my math, the school's math. I said: Well, you do my math in school.

(Laughter.)

BOB MOSES: So, I went into her classroom and actually taught her and three other students math, and that is how we started this algebra project, which is not (inaudible) country.

But, the issue for us was how do you establish a floor for inner city and rural students

appropriate to the technologies that they have to grow up with.

This computer revolution (inaudible) math literacy tool for citizenship, just as surely as reading and writing was needed for citizenship (inaudible).

So, it is beyond career for us. (inaudible) Who are going to be the citizens of this (inaudible).

So, what (inaudible) 18 years have passed. My oldest daughter worked with us in Mississippi (inaudible) oldest son.

They have organized young people there into what they call the Young People's Project. They have over a hundred students.

They are in high school and mi le school, and they offer work after school and on Saturdays around various math activities.

So, for me, this issue about (inaudible) important, I teach actually six courses that I teach (inaudible) High School in Jackson, Mississippi. This is my fourth year teaching (inaudible) school.

I got to the high school by following some of our students in the middle school who had completed Algebra 1 and tried to make a soft landing for them at the high school level.

What we used with them in geometry was the TI-92. I don't know if you are familiar with that hand-held computer, but we used that to drive a geometry class for the 9th and 10th graders who were coming out of the middle school into the high school.

We have seen a bulge in the number of students who are taking Algebra 2, Trigonometry (inaudible) but that school has never had an AP (inaudible).

It has never had (inaudible). They have a thousand kids there. They are all black, and maybe one white student one year or another that filters through the school.

As I looked at this town (inaudible) segregated (inaudible) Hispanic (inaudible) white (inaudible) black.

But, for the small black schools, I doubt- - I mean, I would like to know if there is one small

all-black school around the country that (inaudible).

Maybe some black students (inaudible) in the cities, but you deal (inaudible). Let me just give an example of what you are dealing with.

About 1994--about six years ago--we offered-- We had Theo Edwards from Fairville come over and do a (inaudible) for about 30 middle school teachers.

But, the following year, there wasn't one of those teachers that felt comfortable enough to do the graphic calculator in their classes.

What we did was ask Theo to let us have some middle school students in the workshop, and that's where it clicked in our minds, because those kids took to it like ducks to water.

They became leaders in their classrooms, and that is where we got the idea that, well, we can start these kids (inaudible).

This is their technology. They are a generation that has grown up (inaudible) buttons, making the images move on the screen.

They think that the graphic calculator is

worthy of their attention. There isn't one student that will get up and open up a math book, and tell the other students: Look, I don't know anything else about this book, but I know what is written on this page, and I want to explain to you what's written on this page, but don't ask me what's on the next page.

But, they will get up in front of students with a graphic calculator and say: Hey, I know (inaudible) button. I know about (inaudible), and I know what goes on and functions in this button, and, while I haven't learned the rest of it-- They are confident that they will be able (inaudible).

So, if they are willing to get up in front of their peers and talk about this technology-- So, I think that Rex is right on track when he says that one of the keys to all of this is this technology, getting this technology (inaudible).

So, that is our story. We are working on the floor here. How do you get a floor under all of our students for all of them to stand on?

We say, in the algebra project, that the appropriate floor for algebra project students is

that they gauge and be successful in the college prep math curriculum, whatever that looks like in whatever school they are in.

That is not a key to college prep. It is not a key, but it is a floor from which you can begin to figure that you have a chance to pull students into AP courses.

That is where we are. Thank you.

VOICE: Thank you so much, Bob. Now-- No, we are not done. You can clap for him if you want to. Diana Kraus, our AP English teacher from Maine.

So, I hope you are all alert, because this is-- Everybody here, I think, has taught, but Diana is still a teacher.

(Pause.)

VOICES: (Simultaneous conversation.)

VOICES: (inaudible) Play.

(End Tape Side A.)

(Tape Side B.)

VOICE: Yes, it is. We-- When we look at this and we talk a lot in this conference about raising the standard and how do you get there, I look at it as these whole connections of how do you get more kids in the college, and how that happens and whatever the partnerships can be.

We have often thought about our AP scores can be quite skewed, because five of the top kids in our class last year did not sit for the exam but got full rides to colleges--two to the University of Houston--and chose not to sit because of experiences they had had with Tri-State University and those credits.

But, we have got them there. Others that do that and choose to sit for the exam, we feel, do better. It becomes sort of a choice.

But, we only partner with Tri-State University on three of the seven exams that we give, so what we have done is figured out a way to, in our type of schedule, address that gap, if you will.

We don't want our AP courses to conclude in January, for example, and then have the gap until

May before the exam.

We just know the kids-- There will be some adjustment in those scores simply because of that gap, so Tri-State has been one way of connecting that gap in that students move from our courses directly into their higher level courses and continue in chemistry or calculus, or whatever that may be.

Therein lies the options that the students have. Frankly, Tri-State loves those kids, because they are the top of their courses that they get, and so forth.

They reward them, both in tuition and scores in transcripts, and that is good for kids, so we say fine.

In the other courses, we have devoted three of our quarters to AP rather than just two, and we saw some statistics from ETS that suggested that kids on schedules like ours do better if they have that.

I know of other schools in our area (inaudible) all types of schedules that run what is referred to as skinnies through the whole schedule.

(inaudible) block 2 AP courses together, for example, and run them the whole year, again addressing the gap.

So, I believe that you can take the schedule that works well for most kids and adapt things, so music works, so that drama works, so that journalism works, so that AP works.

That is what we have tried to do.

VOICE: I would like to address something regarding the block. I know there is a question about one-semester courses or courses that are taught for one semester.

In Texas, economics and government are one-semester courses, so we are always dealing with that gap. Next year, we are going to implement a course where the second semester, they are going to meet--

I'm sorry. We have eight periods (inaudible) modified block 4 periods a day, first to fourth, fifth through eighth, and they are 90 minutes long.

We are going to start next year where, in

the Spring semester, we are going to pair economics and government and meet everyday.

That way, they get the course, and the course will end together in May.

VOICE: Thanks, Phil. Other questions? Yes, ma'am.

VOICE: Some of the schools that you talked about still have (inaudible) students, but we do have some schools in Michigan that there is maybe one teacher that teaches all the science classes, or one teacher (inaudible) classes.

Do you have any examples, or anybody in the room, of places where, in a rural setting, when you only have one or two teachers (inaudible) satellite and online courses?

VOICE: (inaudible)

VOICE: I know one thing we saw in northern Maine a few years ago (inaudible) is that, in that situation, the school teaches its regular course (inaudible) you might not even have advanced biology courses.

(inaudible) a way you can handle that is

to have an extra activity for the three or four kids who are told in advance are going (inaudible).

A key to it is that you are collaborating with four or five other school (inaudible) set up to pick up three kids in one district, one in another district, five in another district.

Then, all of those get bundled (inaudible), so it is kind of a multidisciplinary (inaudible) university approach.

Obviously (inaudible) extra time for everybody involved, because the way (inaudible).

VOICE: Thanks. Rex, I am sorry. Were you going to add anything on that note?

REX BOLINGER: You can go ahead.

VOICE: Okay. Other questions from the audience. People maybe are tired and hungry. Yes, ma'am.

VOICE: (inaudible) compacted summer activity. We think this might encourage students to take an AP class that they might not take (inaudible).

(inaudible) problem, and this way you

could have the high school students have maybe community college professors teach in the classes.

In the rural schools, we have, like you said, a lot of trouble getting people who want to do that (inaudible).

It seems like these kids maybe don't need 15 weeks sometimes.

VOICE: Anybody?

VOICE: I haven't, but I like that thought.

VOICE: (inaudible).

VOICE: Where is that?

VOICE: Department of Education in Indiana.

VOICE: Great. I was going to ask if there were any Indiana folks here, and I was going to sit down and let you talk.

VOICE: (inaudible).

VOICE: The question--

VOICE: The question was has anybody thought of offering AP courses in accelerated summer types of activities, where we might be able to get

some of the teachers, and things, from universities, and so forth, that could do that in rural settings rather than the time that we typically think of AP experiences.

VOICE: It would seem to me that, if you are offering something during the summer, that they would complete that in August and that wouldn't coincide with the testing time.

One thing, again, that I said that we have done is we have, to extend the period or extend the time that they met, is that me meet everyday with the students in our calculus class and some other classes.

I think you are probably wondering about the problem of having a teacher teach the AP class during the year?

VOICE: No, I am just think of creative ways to get kids more interested. I might not want to be challenged by an AP class during my regular school year plus the challenge of getting a qualified teacher.

(inaudible) more people involved, more

kids challenged. What we need is some creative testing, I think, (inaudible).

VOICE: During the summer, as I mentioned earlier in my presentation, we offer a pre-calculus class for students who want to do that.

We have approximately 25 students signed up in the summer, and it is taught by the AP calculus teacher, who-- I mean (inaudible) from July to--

VOICE: (inaudible).

VOICE: Well, it is a pre-calculus class. It is a class that precedes calculus, trigonometry (inaudible) elementary analysis.

This year, we are going to offer Algebra 2 for students who want to take it for free. They don't have to pay the $65 per semester.

It is going to be taught by our pre-calculus teacher, so, in essence, they are going to have them for the summer so there is no lag time.

They are going to have them in the class that following year, and preferably those students who finish that Algebra 2 class are going to take pre-calculus during the summer, so we have a two-year

block.

I think, if we can look at the curriculum in the sense that what is our goal, again the calculus class a being the capstone course for these people, a lot can get done during those two years.

VOICE: And, on a practical note, you would have to consider subsidizing them, because most of my poor kids need jobs in the summer.

So, they would have to make money, too, somehow while they were going to do that.

VOICE: There is a partnership program that we have in San Antonio that allows--that pays the students to come to school (inaudible) project (inaudible) in San Antonio.

We also have an educational partnership in San Antonio that pays for students' college and books for two years if they attend the college university in San Antonio.

So, these are some efforts that you might want to look at in terms of getting support.

VOICE: Other questions? If not, I want to thank all of you for coming, thank our panelists

again. You did a great job. Thank you so much.

(Applause.)

(Whereupon, the meeting was adjourned.)

(End Tape Side B.)